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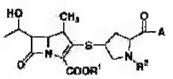
(54) 1-METHYLCARBAPENEM DERIVATIVE

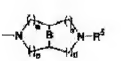
(57)Abstract:

PURPOSE: To provide a new 1-methylcarbapenem derivative excellent in antibacterial action, physicochemical stability and stability against enzymes, exhibiting good antibacterial activity also against bacteria resistant to penicillin and cephalosporin antibiotics, and useful as an agent for preventing and treating infections diseases.

CONSTITUTION: The derivative of formula I {R1 is H, protecting group; R2 is H, alkyl, etc.; A is group of formula II or III [R5 is protecting group, alkyl, etc,; a-d are 0-3 wherein a=b=c=d=0 is excluded; -B- is single bond,



I



II

III

ethylene, etc.; Q1-Q3 are N, CR11 (R11 is amino, alkyl, etc.,), etc.; f, g are 0-3 wherein f=g=0 is excluded], etc.,} and its salt, e.g. (1R,5S,6S)-6-[(R)-1-hydroxyethyl]-1- methyl-2-[[(2S,2S)-2-[[(1S,4S)-2,5-diazabicyclo[2.2.1]heptan-2- yl]carbonyl]pyrrolidin-4-yl]thio]carbapenem-3-carboxylic acid. The derivative is obtained e.g. by activating a compound of formula IV and subseqently reacting the activated compound with a thiol compound.